Symmetries In Constrained Canonical Systes

Symmetries In Constrained Canonical Systes_下载链接1_

著者:Li Ziping 编

出版者:科学出版社

出版时间:2002-12-01

装帧:

isbn:9787030095824

《Symmetries In Constrained Canonical Systes》主要内容：A dynamical system described by a singular Lagrangian is subject to some in- herent phase space constraints and is called a constrained canonical system (or con- strained Hamiltonian system). Gauge field theories (for example, QED, QFD, QCD, Supergravity, Superstring) belong to this category. These theories now dominate particle physics. The theory of a constrained canonical system can also be applied to the theories of condensed matter and some other research area (for ex- ample, the quantum field theories of anyons). The theories of a constrained canon- ical system play a fundamental role in modern field theories. The quantization of a constrained canonical system with a singular Lagrangian remains one of the key problems of quantum field theory and is being intensively discussed in the litera- ture. Symmetry is now a fundamental concept in modern physics. As it is well known, the discussion of symmetry properties of a system is usually based on the examination of the Lagranigan in configuration space. In quantum theory, the phase-space path integral is more fundamental than the configuration-space path integral, the latterprovides for a Hamiltonian quadratic in canonical momenta, whereas the former can be applied to an arbitrary Hamiltonian. Thus, the phase- space form of the path integral is a necessary precursor to the configuration-space form of the path integral. Therefore, the investigation of symmetry

properties of a system in phase space has a basic sense in quantum theories, which can be applied to more general cases

作者介绍:

目录: Chapter I Constr
・・・・・・(收起)

Symmetries In Constrained Canonical Systes_下载链接1_

标签

评论

Symmetries In Constrained Canonical Systes_下载链接1_

书评

Symmetries In Constrained Canonical Systes_下载链接1_